

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A data processing method, comprising steps of:

providing a first device adapted to be connected to a second device, the first device
comprising:

a communicator having a first interface function and a second interface
function defined in an asymmetric interface standard;

a first communications processor operable to transmit data to the second
device through use of the first interface function; and

a second communications processor operable to transmit a signal for
processing the data to the second device through use of the second interface function;

connecting a the second device to the first device;

detecting whether the second device has at least one of the first interface function and
the second interface function;

activating the first communications processor transmitting data, from the first device
to the second device, through use of the first interface function, in a case where it is detected
that the second device has the second interface function; and

activating the second communications processor transmitting a signal for processing
the data, from the first device to the second device, through use of the second interface
function, in a case where it is detected that the second device has the first interface function.

Claim 2 (Original): The data processing method as set forth in claim 1, wherein the data
includes at least one of image data, music data and motion picture data.

Claim 3 (Original): The data processing method as set forth in claim 1, wherein:

it is detected that the second device has the first interface function in a case where a
first type connector of a cable defined under the interface standard is connected to the
communicator; and

it is detected that the second device has the second interface function in a case where
a second type connector of a cable defined under the interface standard is connected to the
communicator.

Claim 4 (Original): The data processing method as set forth in claim 1, wherein:

the interface standard is an On-The-Go standard of a USB;

the first interface function is a device-side interface function of the USB; and
the second interface function is a host-side interface function of the USB.

Claim 5 (Original): The data processing method as set forth in claim 1, wherein each of the steps of transmitting the data and the signal is performed on the basis of one of a plurality of USB classes in accordance with at least one of a type of the second device and an application executed in the second device.

Claim 6 (Original): The data processing method as set forth in claim 4, further comprising steps of:

detecting whether the first interface function and the second interface function are assigned to the first device and the second device correctly; and

activating a negotiation protocol in a case where it is detected that the first interface function and the second interface function are incorrectly assigned, so that each of the first device and the second device has the other one of the first interface function and the second interface function.

Claim 7 (Original): The data processing method as set forth in claim 6, wherein the first device is a digital camera device, and the second device is a PDA device having both of the first interface function and the second interface function.

Claim 8 (Original): The data processing method as set forth in claim 6, wherein the first device is a digital camera device, and the second device is a printer having both of the first interface function and the second interface function.

Claim 9 (Original): The data processing method as set forth in claim 1, wherein:

the step of transmitting the data is performed in a case where the first device is a digital camera device and the second device is a printer having a host-side interface of a USB; and

the step of transmitting the signal is performed in a case where the first device is a digital camera device and the second device is a printer having a device-side interface of the USB.

Claim 10 (Currently Amended): A data processing method, comprising steps of:

providing a first device adapted to be connected to a second device, the first device
comprising:

a storage storing data therein;

a communicator having a first interface function and a second interface
function defined in an asymmetric interface standard;

a first communications processor operable to transmit the data to the second
device through use of the first interface function; and

a second communications processor operable to exchange the data between
the first device and a storage in the second device through use of the second interface
function;

connecting ~~a~~ the second device to the first device;

detecting whether the second device has at least one of the first interface function and
the second interface function;

activating the first communications processor ~~transmitting data, from the first device~~
~~to the second device, through use of the first interface function,~~ in a case where it is detected
that the second device has the second interface function; and

activating the second communications processor ~~exchanging the data, between the~~
~~first device and a storage in the second device, through use of the second interface function,~~
in a case where it is detected that the second device has the first interface function.

Claim 11 (Original): The data processing method as set forth in claim 10, wherein the data
includes at least one of image data, music data and motion picture data.

Claim 12 (Original): The data processing method as set forth in claim 10, wherein:

it is detected that the second device has the first interface function in a case where a
first type connector of a cable defined under the interface standard is connected to the
communicator; and

it is detected that the second device has the second interface function in a case where
a second type connector of a cable defined under the interface standard is connected to the
communicator.

Claim 13 (Original): The data processing method as set forth in claim 10, wherein:

the interface standard is an On-The-Go standard of a USB;

the first interface function is a device-side interface function of the USB; and

the second interface function is a host-side interface function of the USB.

Claim 14 (Original): The data processing method as set forth in claim 10, wherein each of the steps of transmitting the data and the signal is performed on the basis of one of a plurality of USB classes in accordance with at least one of a type of the second device and an application executed in the second device.

Claim 15 (Original): The data processing method as set forth in claim 13, further comprising steps of:

detecting whether the first interface function and the second interface function are assigned to the first device and the second device correctly; and

activating a negotiation protocol in a case where it is detected that the first interface function and the second interface function are incorrectly assigned, so that each of the first device and the second device has the other one of the first interface function and the second interface function.

Claim 16 (Original): The data processing method as set forth in claim 15, wherein the first device is a digital camera device, and the second device is a PDA device having both of the first interface function and the second interface function.

Claim 17 (Original): The data processing method as set forth in claim 15, wherein the first device is a digital camera device, and the second device is a printer having both of the first interface function and the second interface function.

Claim 18 (Original): The data processing method as set forth in claim 1, wherein:

the step of transmitting the data is performed in a case where the first device is a digital camera device and the second device is a printer having a host-side interface of a USB; and

the step of exchanging the data is performed in a case where the first device is a digital camera device and the second device is a printer having a device-side interface of the USB.

Claim 19 (Original): A data processing method, comprising steps of:

providing a first device comprising a storage which stores data therein, and a communicator having a device-side interface function of a USB;

connecting a second device to the first device;

selecting one of a plurality of USB classes in accordance with at least one of a type of the second device and an application executed in the second device; and

transmitting the data, from the first device to the second device, through use of the device-side interface function and based on the selected one of the USB classes.

Claim 20 (Original): The data processing method as set forth in claim 19, further comprising steps of:

providing, in the first device, a plurality of interface descriptors each of which is associated with one of the USB classes; and

transmitting all of the interface descriptors, in a case where the second device is adapted to at least one of the USB classes.

Claim 21 (Original): The data processing method as set forth in claim 20, wherein the interface descriptors includes:

a first interface descriptor for a first USB class used in a case where the second device is a printer having a host-side interface function of the USB; and

a second interface descriptor for a second USB class used in a case where the first device serves as an external storage of the second device.

Claim 22 (Original): The data processing method as set forth in claim 21, wherein the first USB class is a still image capture device class, and the second USB class is a mass storage class.

Claim 23 (Original): The data processing method as set forth in claim 19, further comprising steps of:

providing, in the first device, a first interface descriptor associated with a USB class, and a second interface descriptor associated with a vendor-extended USB class corresponding to the USB class;

transmitting, from the first device to the second device, the first interface descriptor and the second descriptor; and

activating the second descriptor in a case where the first device receives a command for activating the second descriptor from the second device.

Claim 24 (Original): A data processing method, comprising steps of:

- providing a first device comprising a storage which stores data therein, and a communicator having a host-side interface function of a USB;
- connecting a second device to the first device;
- selecting one of a plurality of USB classes in accordance with at least one of a type of the second device and an application executed in the second device; and
- transmitting the data, from the first device to the second device, through use of the host-side interface function and based on the selected one of the USB classes.

Claim 25 (Original): The data processing method as set forth in claim 24, wherein the one of the USB classes is selected in accordance with a type of a descriptor transmitted from the second device.

Claim 26 (Original): A first data processing device adapted to be connected to a second data processing device, the first data processing device comprising:

- a storage, which stores data therein;
- a communicator, having a first interface function and a second interface function defined in an asymmetric interface standard;
- a first communications processor, operable to transmit the data to the second data processing device through use of the first interface function;
- a second communications processor, operable to transmit a signal for processing the data to the second data processing device through use of the second interface function; and
- a controller, which activates the first communications processor, in a case where the second data processing device having the second interface function is connected to the communicator, and activates the second communications processor to transmit the data, in a case where the second data processing device having the first interface function is connected to the communicator.

Claim 27 (Original): A first data processing device adapted to be connected to a second data processing device, the first data processing device comprising:

- a storage, which stores data therein;
- a communicator, having a first interface function and a second interface function defined in an asymmetric interface standard;
- a first communications processor, operable to transmit the data to the second data processing device through use of the first interface function;
- a second communications processor, operable to exchange the data between the first device and a storage in the second device through use of the second interface function; and
- a controller, which activates the first communications processor to transmit the data, in a case where the second data processing device having the second interface function is connected to the communicator, and activates the second communications processor to exchange the data, in a case where the second data processing device having the first interface function is connected to the communicator.

Claim 28 (Original): A first data processing device adapted to be connected to a second data processing device, the first data processing device comprising:

- a storage, which stores data therein;
- a communicator, having a device-side interface function of a USB; and
- a communications processor, which transmits the data to the second image processing device, through use of the device-side interface function and based on one of a plurality of USB classes which is selected in accordance with at least one of a type of the second data processing device and an application executed in the second data processing device.

Claim 29 (Original): A first data processing device adapted to be connected to a second data processing device, the first data processing device comprising:

- a storage, which stores data therein;
- a communicator, having a host-side interface function of a USB; and
- a communications processor, which transmits the data to the second image processing device, through use of the host-side interface function and based on one of a plurality of USB classes which is selected in accordance with at least one of a type of the second data processing device and an application executed in the second data processing device.

Claim 30 (Original): A data processing system, comprising:

- a first data processing device, comprising a storage which stores data; and
- a second data processing device, connected to the first data processing device to perform processing with respect to the data,
 - wherein the first data processing device further comprises:
 - a communicator, having a first interface function and a second interface function defined in an asymmetric interface standard;
 - a first communications processor, operable to transmit the data to the second data processing device through use of the first interface function;
 - a second communications processor, operable to transmit a signal for processing the data to the second data processing device through use of the second interface function; and
 - a controller, which activates the first communications processor, in a case where the second data processing device having the second interface function is connected to the communicator, and activates the second communications processor to transmit the data, in a case where the second data processing device having the first interface function is connected to the communicator.

Claim 31 (Original): A data processing system, comprising:

- a first data processing device, comprising a storage which stores data; and
- a second data processing device, connected to the first data processing device to perform processing with respect to the data,
 - wherein the first data processing device further comprises:
 - a communicator, having a first interface function and a second interface function defined in an asymmetric interface standard;
 - a first communications processor, operable to transmit the data to the second data processing device through use of the first interface function;
 - a second communications processor, operable to exchange the data between the first device and a storage in the second device through use of the second interface function; and
 - a controller, which activates the first communications processor to transmit the data, in a case where the second data processing device having the second interface function is connected to the communicator, and activates the second communications processor to exchange the data, in a case where the second data processing device having the first interface function is connected to the communicator.

Claim 32 (Original): A data processing system, comprising:

- a first data processing device, comprising a storage which stores data; and
- a second data processing device, connected to the first data processing device to perform processing with respect to the data,

wherein the first data processing device further comprises:

- a communicator, having a device-side interface function of a USB; and
- a communications processor, which transmits the data to the second image processing device, through use of the device-side interface function and based on one of a plurality of USB classes which is selected in accordance with at least one of a type of the second data processing device and an application executed in the second data processing device.

Claim 33 (Original): A data processing system, comprising:

- a first data processing device, comprising a storage which stores data; and
- a second data processing device, connected to the first data processing device to perform processing with respect to the data,

wherein the first data processing device further comprises:

- a communicator, having a host-side interface function of a USB; and
- a communications processor, which transmits the data to the second image processing device, through use of the host-side interface function and based on one of a plurality of USB classes which is selected in accordance with at least one of a type of the second data processing device and an application executed in the second data processing device.